Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

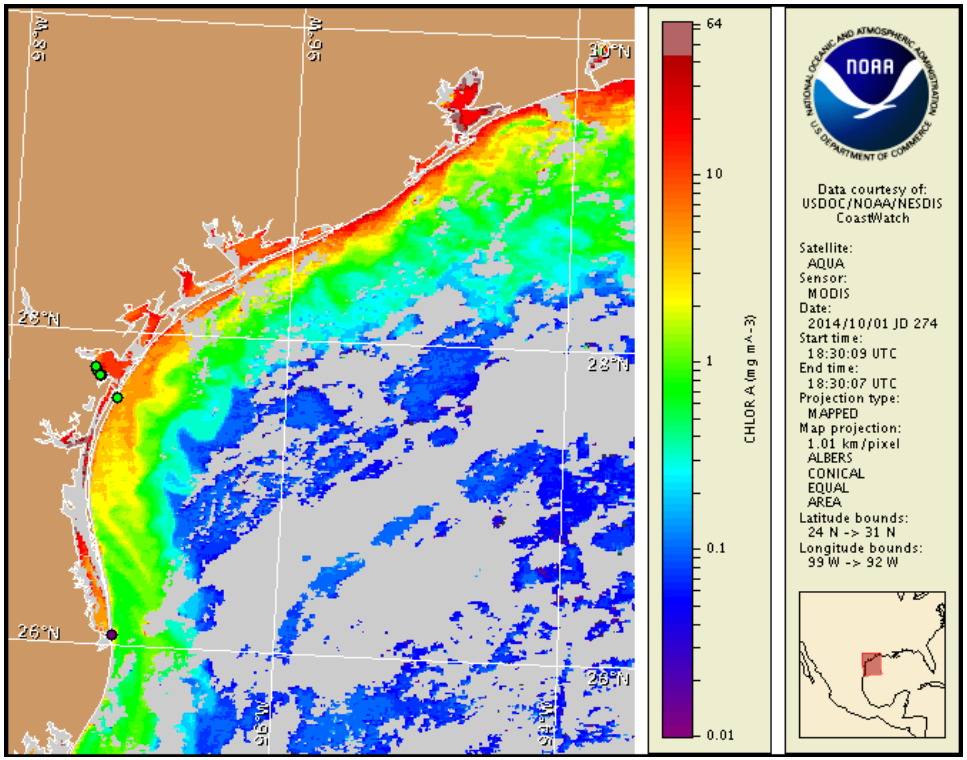
Thursday, 02 October 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, September 29, 2014



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from September 22 to October 1: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml

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To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Karenia brevis (commonly known as Texas red tide) ranges from not present to very low concentrations along the coast of Texas. No respiratory irritation is expected alongshore Texas Thursday, October 2 through Monday, October 6.

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations.

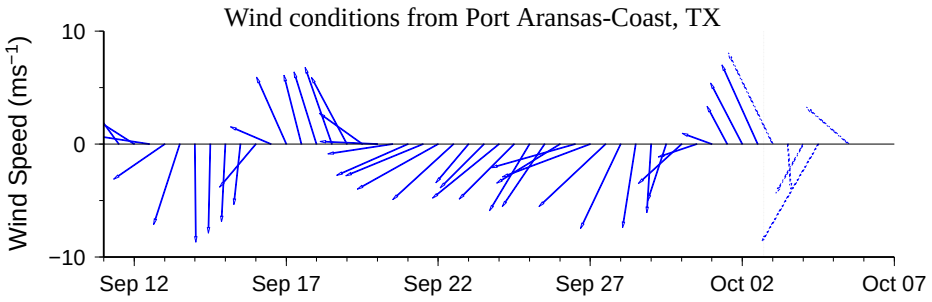
Analysis

Recent sampling alongshore the Texas coast continues to indicate that *Karenia brevis* is not present alongshore the Mustang Island or within the western Corpus Christi Bay regions (TPWD; 9/30) while sampling from Texas A&M University's Imaging FlowCytobot, located on the Port Aransas ship channel, continues to indicate *K. brevis* concentrations range from 'not present' to 'background' (TAMU; 9/29-10/2). Two samples from the Sea Gun Marina in the Lower Laguna Madre to Laguna Vista Bay region detected 'very low a' concentrations of *K. brevis* (TPWD; 9/30-10/1). No respiratory irritation or fish kills have been reported from alongshore the Texas coast over the last few days (TPWD; 9/29-10/2). For information on area shellfish restrictions, contact the Texas Department of State Health Services.

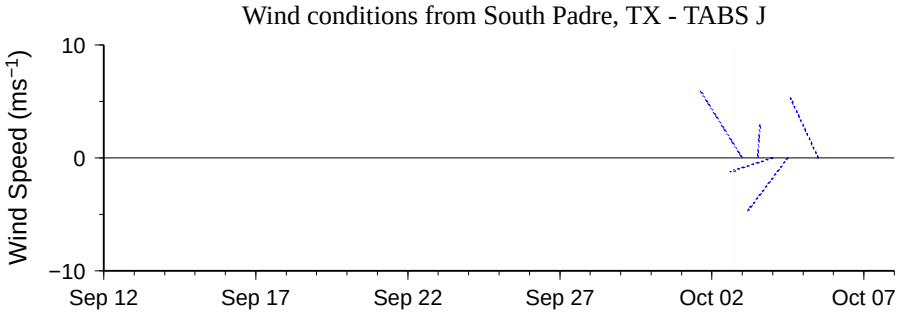
In recent MODIS Aqua imagery from 10/1 (shown left), elevated to very high chlorophyll (2->20 μg/L) is visible along- and offshore from Sabine Pass to Aransas Pass. Patches of elevated to high chlorophyll (2-15 μg/L) are visible along- and offshore from Aransas Pass to South Padre Island. Elevated chlorophyll is not necessarily indicative of the presence of *K. brevis* and many of the patches from along- and offshore Sabine Pass to Padre Island National Seashore are most likely due to the resuspension of benthic chlorophyll and sediments along the coast. *In situ* sampling is necessary to confirm the presence of *K. brevis*.

Forecast models based on predicted near-surface currents indicate that the maximum transport of *K. brevis* cell concentrations from coastal sample locations may be 40km north from the Brazos Santiago Pass region and negligible (<10km) from the Port Aransas region from October 1 through October 5.

Davis, Kavanaugh



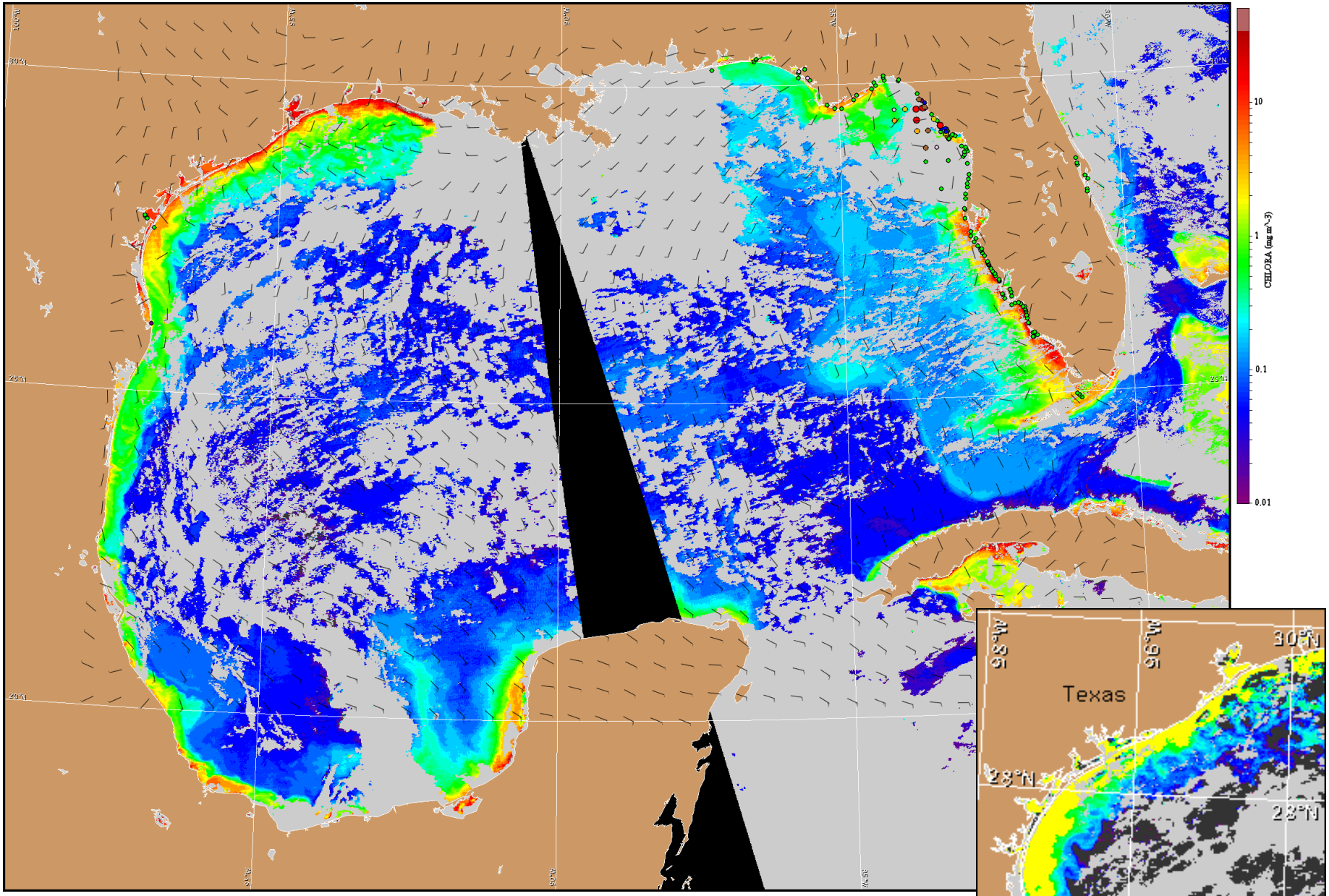
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

Port Aransas: South to southeast winds (15kn, 8m/s) today shifting southwest after midnight. North to northeast winds (10-20kn, 5-10m/s) Friday and Saturday becoming east winds (10-15kn, 5-8m/s) Saturday night before shifting southeast after midnight. Southeast winds (5-15kn, 3-8m/s) Sunday and Monday becoming south winds (10kn, 5m/s) Monday night.

South Padre: Southeast winds (12-16kn, 6-8m/s) today becoming south winds (11-16kn, 6-8m/s) this evening and decreasing overnight. Light winds Friday morning becoming northeast winds (8-16kn, 4-8m/s) Friday afternoon through Saturday. East winds (9-14kn, 5-7m/s) Saturday night becoming southeast winds (7-11kn, 4-6m/s) after midnight. South winds (9-14kn) Sunday and Monday.



Satellite chlorophyll image and forecast winds for October 3, 2014 12Z with points representing cell concentration sampling data from September 22 to October 1: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).